

REMARKS

The office action of October 28, 2009, has been carefully considered.

It is noted that claims 1-3 are objected to for containing various informalities.

Claims 1-3 are rejected under 35 U.S.C. 103(a) over the patent to Katagiri in view of the patent to Brahler.

In view of the Examiner's objection to and rejection of the claims, applicant has amended claims 1 and 3.

With the amendments to the claims applicant submits that the objection to the claims is overcome and should be withdrawn.

It is respectfully submitted that the claims presently on file differ essentially and in an unobvious, highly advantageous manner from the constructions disclosed in the reference.

To better address the differences between the presently claimed invention and the references, applicant has assigned each

feature of the claimed invention with a letter, as indicated below:

- A) Actuating device for a lock in a door or hatch of a motor vehicle,
- B) with a lock cylinder (10), which has a lock (15) located a certain axial distance away and a one-piece shaft (20) extending between the lock cylinder and the lock;
- C) the shaft transmits (13) a torque (12) to the lock (15) when the lock cylinder (10) is rotated;
- D) where the one-piece shaft (20) is flexible (14.1-14.4) in an axial direction (14) of the shaft (20) to compensate for a radial offset (18, 19) between the axis (16) of the lock cylinder (10) and the lock (15),
- E) wherein the one-piece shaft (20) is made of flexible material (29) and has a family of notches (25, 25') extending transversely to the axis (14) of the one-piece shaft;
- F) the notches are recessed in pairs (25, 25') into the one-piece shaft (20) from diametrically opposing sides (21, 22 and 23, 24), the notches each having two flanks;
- G) wherein when the one-piece shaft (20) is stretched out straight, the two flanks (26, 26; 26', 26') of the notches (25, 25') are essentially parallel to each other and extend radially

with respect to the axis (14) of the shaft;

H) wherein the notch pairs (25, 26') leave a web (27, 27') in the one-piece shaft (20) between the flanks (26, 26; 26', 26');

I) the web is located on the axis (14) of the shaft and has a web length (28, 28') that extends essentially across the entire diameter (30) of the one-piece shaft (20) and a web width that extends in the direction of the axis (14);

K) wherein the web (27, 27') produces flex points, when bending load is exerted on the one-piece shaft (20), the two flanks (26, 26; 26', 26') of the notch pairs (25, 25') can swing toward (38, 38') or away (37, 37') from each other at the flex points;

L) wherein intermediate axial pieces (40), extending in the axial direction (14) of the shaft and with the full cross section of the shaft (40), remain between successive pairs of diametrically opposing notches (25, 25'); and

M) wherein a driver (31) for actuating the lock (15 or 15' or 25") and/or a connection (32) for the lock cylinder (10) is formed integrally on the one-piece shaft (20).

Turning now to the references, the Examiner is correct that Katagiri teaches features A) through D), as well as M). However,

contrary to the Examiner's position, Brahler does not teach the remaining features.

Relative to feature E): Brahler teaches "longitudinal, V-shaped grooves". The present invention, on the other hand, has essentially the opposite, namely "a family of notches (25, 25') extending transversely to the axis (14) of the one-piece shaft". Brahler teaches "strand-like elements which assume a twisted, cable-like configuration in the area of bend". In the "area of the bend" Brahler has a longitudinally extending continuous cross-section. In contrast, the present invention has a continuously changing cross-section, of which two are shown in Figs 2a and 2b. The present invention even has a full cross-section in the regions indicated by "40".

Relative to feature L): Brahler does not teach "intermediate axial pieces (40), extending in the axial direction (14) of the shaft and with the full cross section of the shaft (40), remain between successive pairs of diametrically opposing notches (25, 25')".

Relative to feature G): Brahler has V-shaped grooves in which the flanks run at an angle to each other. The present

invention has just the opposite, namely flanks that run "essentially parallel to each other". Furthermore, the grooves of Brahler are longitudinal, whereas the flanks of the present invention "extend radially with respect to the axis (14) of the shaft".

Relative to features H) + I): With the V-shaped grooves of Brahler, the V-flanks meet at a point as shown in Figs 3, 5 and 6. In contrast, the parallel flanks of the present invention are spaced from each other so that at the base of the flanks a web remains. This is not taught by Brahler.

Thus, in view of the above arguments, a combination of Katagiri and Brahler does not teach the presently claimed invention.

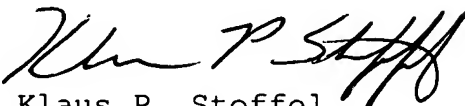
In view of these considerations it is respectfully submitted that the rejection of claims 1-3 under 35 U.S.C. 103(a) over a combination of the above-discussed references is overcome and should be withdrawn.

Reconsideration and allowance of the present application are respectfully requested.

BM-173

Any additional fees or charges required at this time in connection with this application may be charged to Patent and Trademark Office Deposit Account No. 11-1835.

Respectfully submitted,

By 
Klaus P. Stoffel
Reg. No. 31,668
For: Friedrich Kueffner
Reg. No. 29,482
317 Madison Avenue, Suite 910
New York, New York 10017
(212) 986-3114

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I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Commissioner for Patents, PO Box 1450 Alexandria, VA 22313-1450, on January 28, 2010.

By: 
Klaus P. Stoffel

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